

# FO-4LC-xxM Series

## User's Guide



FO-4LC-xxM Series

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## Section 1: Getting Started

### 1.1 Important Safeguards

**Please read all of these instructions carefully before you use the device. Save this manual for future reference.**

#### **What the warranty does not cover**

- Any product, on which the serial number has been defaced, modified or removed.
- Damage, deterioration or malfunction resulting from:
  - Accident, misuse, neglect, fire, water, lightning, or other acts of nature, unauthorized product modification, or failure to follow instructions supplied with the product.
  - Repair or attempted repair by anyone not authorized by us.
  - Any damage of the product due to shipment.
  - Removal or installation of the product.
  - Causes external to the product, such as electric power fluctuation or failure.
  - Use of supplies or parts not meeting our specifications.
  - Normal wear and tear.
  - Any other causes which does not relate to a product defect.
- Removal, installation, and set-up service charges.

## 1.2 Safety Instructions

- Do not dismantle the housing or modify the module.
- Dismantling the housing or modifying the module may result in electrical shock or burn.
- Refer all servicing to qualified service personnel.
- Do not attempt to service this product yourself as opening or removing housing may expose you to dangerous voltage or other hazards
- Keep the module away from liquids.
- Spillage into the housing may result in fire, electrical shock, or equipment damage. If an object or liquid falls or spills on to the housing, unplug the module immediately.
- Have the module checked by a qualified service engineer before using it again.

## 1.3 Regulatory Notices Federal Communications Commission (FCC)

This equipment has been tested and found to comply with Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

Any changes or modifications made to this equipment may void the user's authority to operate this equipment.

## 1.4 Introduction

Avenview FO-4LC-xxM Series with fiber optic cable system lets you extend single link digital signal up to 1000 meters (3300 feet).

- High Speed and long distance transmission by LC type Multi-Mode fiber
- Uses 7 strand multi-mode LC fiber optic cable
- Supports both Single link and Dual link by selectable function switch
- R, G, B, Clock signal is transmitted separately by Multi-Mode optical Fiber
- Supports up to WUXGA (1920 x 1200) resolution
- Self detecting function for EDID
- Optional external power supply (Automatic Power switch is included)

## 1.5 Package Contents

Before you start the installation of the converter, please check the package contents.

- Transmitter x 1 pc
- Receiver x1 pc
- Power Adapter (5VDC, 2A)
- User's Manual

## 1.6 Before Installation

- Put the product in an even and stable location. If the product falls down or drops, it may cause an injury or malfunction.
- Don't place the product in too high temperature (over 50°C), too low temperature (under 0°C) or high humidity.
- Use the DC power adapter with correct specifications. If inappropriate power supply is used then it may cause a fire.
- Do not twist or pull by force ends of the optical cable. It can cause malfunction.



## 1.7 Installation

Avenview FO-4LC-xxM is composed of a transmitter and a receiver. The Transmitter should be connected to the computer's DVI Port and the Receiver should be connected the DVI Port of the digital display device. Avenview FO-4LC-xxM Transmitter is designed to be used with the LC type standard optical cable. It is marked with R, G, B, O connect. "R" to the Red Color optical cable, "G" to the Green, "B" to Blue and "O" to Orange

Avenview FO-4LC-xxM is designed to self detect the resolution of the monitor and change the resolution accordingly. Follow these steps for connecting to a device:

1. Power on your display
2. Connect Transmitter to the DVI of display
3. Plug the DC power of Transmitter
4. Pull out after about 5 – 10 seconds for reading the EDID information from the display
5. Connect Transmitter to the PC and Receiver to the Display.
6. At the same time, connect DC power to the receiver
7. Connect the optical fiber between Transmitter and Receiver.
8. Restart the computer.

*Use the DC adapter (included in the package) for the Receiver. The Transmitter which is connected to a computer uses power from the computer.*

## 1.8 General Troubleshooting

<b>Problem</b>	<b>Possible Solution</b>
<b>No Image</b>	<ul style="list-style-type: none"><li>• Check if the PC Power is on</li><li>• Check if connection to the computer and the monitor are correct.</li><li>• Check the optical fiber connection</li><li>• Turn the PC Power off and on again.</li></ul>
<b>Screen Defects Appear</b>	<ul style="list-style-type: none"><li>• This product supports up to WUXGA resolution.</li><li>• Check the maximum resolution range of the graphics card.</li></ul>

## Section 2: Specifications

Item	Description
<b>Video Bandwidth</b>	1.65Gbps (Single Link)
<b>Connector</b>	DVI 24Pin Plug and LC Connector
<b>Power Consumption</b>	0.75 Watt (max)
<b>Maximum Resolution</b>	1280x1024 @ 700m (2300 ft) 1600x1200 @ 500m (1650 ft) 1920x1200 @ 300m (1000 ft)

### Optical

<b>Optical Source</b>	850nm VCSEL
<b>O/E Converter</b>	PIN Photo Diode
<b>Fiber Type</b>	50/125 or 62.5/125 LC Multi-Mode Fiber

### Environmental

<b>Operation</b>	0° to 50°C Degree
<b>Storage</b>	-20° to 70°C Degree

## 2.1 Signal Pin Assignment

### Transmitter

Pin	Signal Assignment	Pin	Signal Assignment	Pin	Signal Assignment
1	T.M.D.S. Data2-	9	T.M.D.S. Data1-	17	T.M.D.S. Data0-
2	T.M.D.S. Data2+	10	T.M.D.S. Data1+	18	T.M.D.S. Data0+
3	T.M.D.S. Data2 Shield	11	T.M.D.S. Data1 Shield	19	T.M.D.S. Data0 Shield
4	No Connect	12	No Connect	20	No Connect
5	No Connect	13	No Connect	21	No Connect
6	DDC Clock	14	+5V Power	22	T.M.D.S. Clock Shield
7	DDC Data	15	Ground (for +5V)	23	T.M.D.S. Clock+
8	No Connect	16	No Connect	24	T.M.D.S. Clock-

### Receiver

Pin	Signal Assignment	Pin	Signal Assignment	Pin	Signal Assignment
1	T.M.D.S. Data2-	9	T.M.D.S. Data1-	17	T.M.D.S. Data0-
2	T.M.D.S. Data2+	10	T.M.D.S. Data1+	18	T.M.D.S. Data0+
3	T.M.D.S. Data2 Shield	11	T.M.D.S. Data1 Shield	19	T.M.D.S. Data0 Shield
4	No Connect	12	No Connect	20	No Connect
5	No Connect	13	No Connect	21	No Connect
6	Not Connect	14	+5V Power	22	T.M.D.S. Clock Shield
7	Not Connect	15	Ground (for +5V)	23	T.M.D.S. Clock+
8	No Connect	16	No Connect	24	T.M.D.S. Clock-



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